TRACS Technical Update

In April 2016, the TRACS team deployed Release 1.11 which includes some major fixes and system enhancements to improve TRACS usability, speed and performance. This includes updates to the map server, GIS data, land record form, sensitive project designation as well as some other miscellaneous items.

Note: These updates (with the exception of the map server update) are currently available only in the production environment. These changes will be available in the training environment after the next production-training sync.

Online reference materials have been updated to reflect the changes in this release. Please visit the TRACS Knowledge Management Site (KMS) for up-to-date information: https://tracs.fws.gov/learning/

Map Server

The map server in TRACS has been upgraded to **ArcGIS 10.3** in all environments, including production and training. In addition to improving security by fixing known issues in our previous version of ArcGIS, this server is considerably faster, leading to dramatically improved rendering time in the TRACS application.
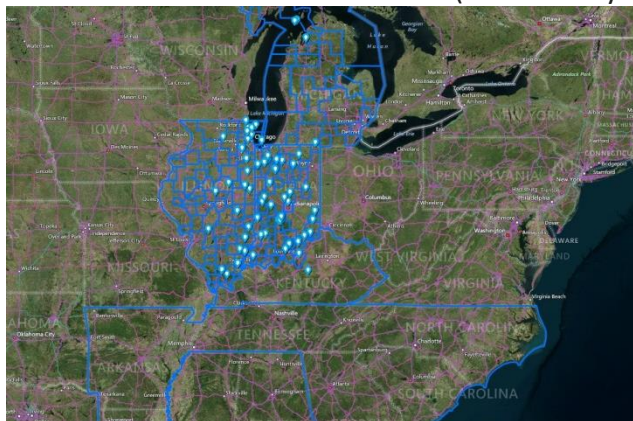
GIS Data

This update improves the GIS (Geographic Information System) data and calculations used to determine the location of projects with respect to our four standard location layers: **FWS Region**, **U.S. State**, **U.S. County** and **U.S. Congressional District**. This update includes both code and data fixes that will improve the system going forward, and also a global recalculation of ALL location data (for site specific features) in the system to ensure it is as accurate as possible for all past and current projects.
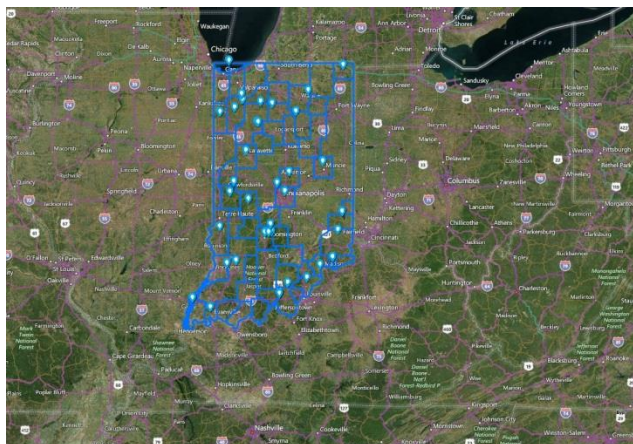
- **Location calculation for all site specific shapes is now much more precise and accurate.** The new data and calculations we use have a higher precision of 10m (compared to the previous 1,000m precision). This means that when entering site specific data near a political border the system is much less likely to get inaccurate location information such as indicating that a project is in a nearby county.

- **Location information when selecting multiple items from the Geopicker is now much more accurate**. This will dramatically reduce system calculation errors showing up as "erroneous counties".

- **Selecting multiple items from the Geopicker is now MUCH faster.** Previously selecting more than 2-3 big and/or coastal states would result in an error. It's now possible to select all 56 states and territories (and even bigger selections) quickly.

- **Selecting multiple items from the Geopicker now results in a shared shape.** Previously, the result of a multiple selection was a site-specific shape. Being shared shapes mean that the mapper will behave with, for example, a multiple state selection the same way as a single state selection. Selecting the new shape will show all projects associated with it, and the user will not be able to edit the resulting shape. This will be a significant improvement for users in identifying on screen shapes and what projects they represent and mapper performance will improve as fewer on-screen shapes will be needed to represent projects.

- In the Feature Explorer, **Congressional Districts** are displayed in a more user friendly way and have been updated to use the 114th Congress Data Set (instead of the 112th).

- **Improved Map Filter Accuracy.** It is no longer possible to create a broken map filter by unselecting the operation type (all or any). Map filters by "State" will now be much more accurate. Below is an example of a filter for all Projects in Indiana.
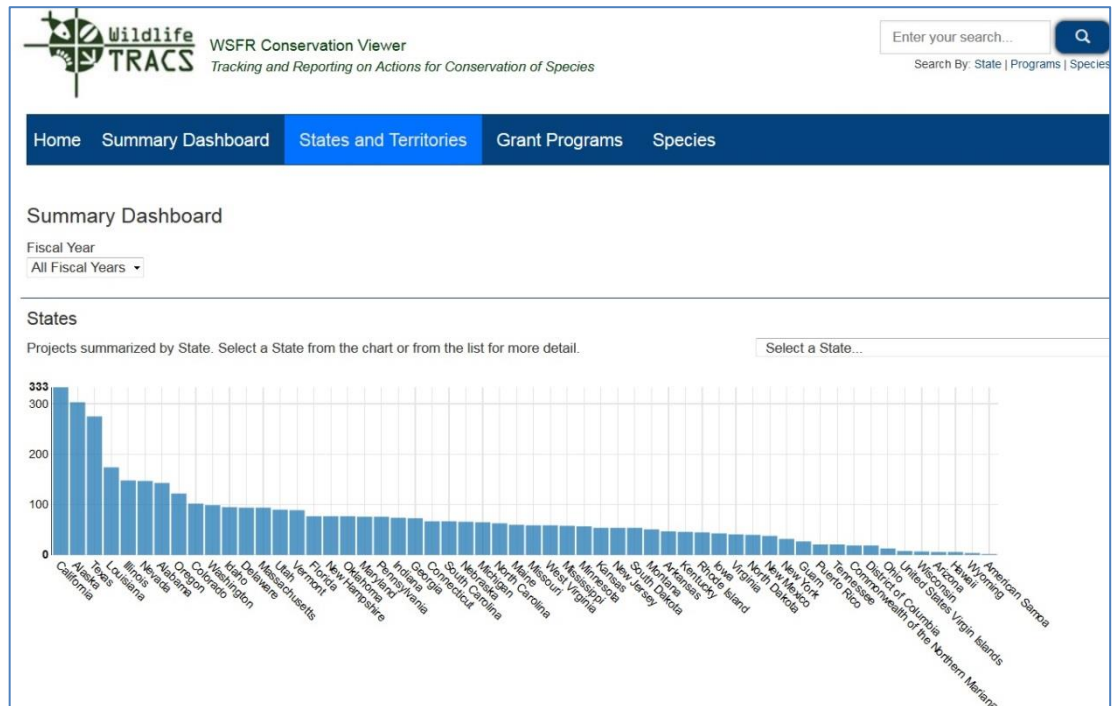
  - Here are the results before the fix (erroneously showing other states):

  - Here is the result after the fix:

- **Improved accuracy on the Public Conservation Viewer - Summary Dashboard and Public Mapper.** Charts and totals on the summary dashboard by state will now be much more accurate. For example California now has a fewer projects displayed (but they are accurate!) because projects in Oregon and Nevada that were previously misclassified as in California have been corrected. As with map filters on the main mapper, the map filters for the public mapper will also be more accurate.

- **Location information on reports will display more accurately.** This includes more accurate and precise location and county information on all reports (summary reports, proposals, performance reports, etc.). This does not apply to previously generated PDFs for proposals and performance reports! Those will remain incorrect unless re-generated by a user.

Land Record Form

Several fields have been updated or debugged on the Land Form used for land and water rights acquisitions. These fixes and updates include:

- The Land Form is now available when the action strategy is Water Rights Acquisition or Land Acquisition. (Note: it is not required or available for the action strategies of "Conservation Area Designation" or "Private Lands Agreements").
- Land Form Contacts no longer require an email address and phone number. The field has been converted to free text to provide more flexibility.
- Address lookup fields have been debugged. The "Land Seller" and "Deed Recording Address" fields have been converted to free text fields.
- The "Encumbrances" box is no longer checked by default or required.

3

- Bug fixes now allow proper saving/loading of "Interest Type", "Titled To" and "Acre/Feet" fields.
- The "Assessor Parcel Number" field has been converted to a free text field.
- The percentage deviation on deeded acres is rounded to avoid confusion near 0.5%.
- The "estimated costs" tab on the Land Record form can now be left blank or accepts $0. You can now submit a performance report with $0 entered on the Project Estimated Costs form as well.
- Land Deeded Acres is now displayed and validated for reporting in "View Addressed Objectives" (i.e. if the deeded acres do not match the polygon acres within 0.5% tolerance range, an error message will display).

Sensitive Project Designation

- Projects marked as sensitive will no longer erroneously display the acreage values of the buffered shape. Now the real acreage will display in both the net action area and deeded acres validation. Note: Reports generated from TRACS (including the Proposal, Summary and Performance Reports) still display the buffered shape acreage and location information.
- Projects marked "Sensitive" no longer show up in the Conservation Viewer due to security/risk considerations. We will be addressing this issue in the 2017 enhancement.

Miscellaneous Updates

- When creating a new statement, information about the statement is immediately available for map filters. Previously it was only available after submitting the statement for review.
- A full audit of all fields/filters has been completed, and map filters should work much more reliably.
- Funding Source searching improved by narrowing the list by state/region.
- FBMS Reports formatting fixes make it easier/faster to load and download reports in TRACS (including improved partial name matching and report download available from Firefox).